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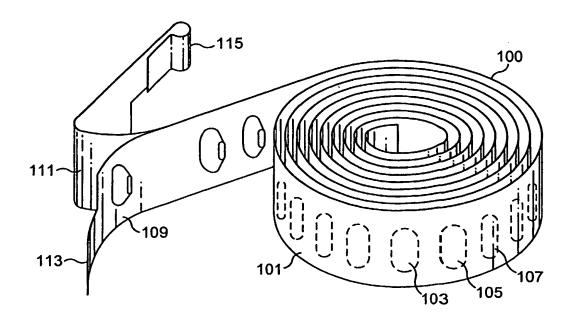
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[Continued on next page]

(54) Title: BLISTER PACKAGE FOR INHALABLE MEDICAMENT



(57) Abstract: There is provided a blister form medicament pack comprising (a) a base sheet in which blisters are formed to define pockets therein for the containment of inhalable medicament; and (b) a lid sheet which is sealable to the base sheet except in the region of the blisters and mechanically peelable from the base sheet to enable release of said inhalable medicament. The base sheet and/or said lid sheet have a laminate structure comprising (a) a first layer of aluminium foil; and (b) a second layer of polymeric material of thickness from 10 to 60 micron, said polymeric material having a water vapour permeability of less than 0.6 g /(100 inches2) (24 hours) (mil) at 25°C.

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 B65D75/34 B32B15/08 A61J1/03

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 $\begin{tabular}{ll} Minimum documentation searched (classification system followed by classification symbols) \\ IPC 7 B65D B32B A61J \\ \end{tabular}$

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal

C. DOCUM	ENTS CONSIDERED TO BE RELEVANT		
Category °	Citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.
х	US 6 337 113 B1 (PASBRIG ERWIN ET AL) 8 January 2002 (2002-01-08)		1-7, 16-19,
Υ	column 1, line 13 -column 2, line 10 column 3, line 4 - line 24 examples 1,2 column 7, line 59 -column 8, line 44		23-27 15,20-22
Χ· Υ	EP 0 646 367 A (SCHERER LTD R P) 5 April 1995 (1995-04-05) column 3, line 2 - line 46; figure 4		1,2,5, 8-11,14 12
Y	EP 0 845 350 A (ALUSUISSE LONZA SERVICES AG) 3 June 1998 (1998-06-03) claims 1-12		12
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X Furth	er documents are listed in the continuation of box C. X Patent family men	nbers are listed in anne	ex.

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22 April 2004	Date of mailing of the international search report 1 3. 05. 2004
Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Bevilacqua, V

INTE ATIONAL SEARCH REPORT

International Application No
PCT/EP 03/12159

- (2 :				PCT/EP 0	3/12159 .
	Citation of decreases with India				
Category °	Citation of document, with Indic	,	Relevant to claim No.		
Υ	US 6 270 869 B AL) 7 August 2 column 1, line column 5, line	15,20,22			
Y	18 August 1992	(LONG THOMAS C E (1992-08-18) 31 - line 50; exa	•		21
\	US 5 589 275 A 31 December 19 column 2, line column 4, line	· · · · · · · · · · · · · · · · · · ·			
\.	EP 1 038 792 A 27 September 2 column 9, line				
	28 November 19	 (MATTHEWS GENE C 95 (1995-11-28) 56 -column 6, lin	•		8-14
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INTERNATIONAL SEARCH REPORT

International application No. PCT/EP 03/12159

Box I	Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This Inte	ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. [Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2.	Claims Nos.: because they relate to parts of the international Application that do not comply with the prescribed requirements to such an extent that no meaningful international Search can be carried out, specifically:
 3	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This Inte	rnational Searching Authority found multiple inventions in this international application, as follows:
	see additional sheet
1.	As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2.	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
з. 🗓	As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.: 1-27
4.	No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark	on Protest The additional search fees were accompanied by the applicant's protest. X No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple: (groups of) inventions in this international application, as follows:

1. Claims: 1-7,15-27

a blister form medicament pack comprising a base sheet in which blisters are formed to define pockets therein and a lid sheet which is sealable to the base sheet and peelable from the base sheet wherein the base sheet or the lid sheet have a laminate structure comprising a first layer of aluminium foil and a second layer made of one of many possible polymeric materials having optimized thickness in order to achieve low water vapour permeability

2. Claims: 8-14

a blister form medicament pack comprising a base sheet in which blisters are formed to define pockets therein and a lid sheet which is sealable to the base sheet and peelable from the base sheet wherein the base sheet or the lid sheet have a laminate steructure comprising a first layer of aluminium foil and a second layer made of a polymeric material whereby the lid sheet has a particular layer composition

3. Claims: 28.29

A medicament dispenser housing a known blister medicament pack and a plurality of mechanical coomponents, and its use

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/EP 03/12159

					l	PCI/EP	03/12159
cite	atent document d in search report		Publication date		Patent family member(s)		Publication date
US	6337113	B1	08-01-2002	CH AU CA WO DE EP JP US ZA	68979 748879 223799 971981 5961024 086381 200050201 200204194 960979	6 A 6 A1 1 A1 6 D1 2 A1 4 T 3 A1	30-11-1999 19-06-1997 05-06-1997 05-06-1997 24-04-2003 16-09-1998 22-02-2000 11-04-2002 09-07-1997
EP	0646367	. ·	05-04-1995	U E G A A A B C C D D D D E E E F W H H H J J J J K N N U S N N N U S	534367; 064636; 302385; 153536; 165736; 677036; 565459; 930580; 212925; 108982; 6931110; 6931842; 071010; 210214; 2118366; 94353; 941214; 100748; 101324; 6943; 279657; 818727; 256847; 750867; 22731; 94280; 258600; 572995;	7 A2 3 T3 5 T B2 6 A A1 6 A A1 6 A1	06-09-1994 05-04-1995 30-09-1997 15-06-1997 15-05-1998 10-04-1997 22-06-1994 18-02-1997 09-06-1994 27-07-1997 25-09-1997 10-06-1998 03-09-1998 03-09-1998 27-07-1994 09-06-1994 16-04-1999 12-05-2000 28-09-1995 10-09-1998 23-07-1996 08-01-1997 28-09-1995 01-11-1999 28-07-1994 21-12-1995 24-03-1998
EP	0845350	Α	03-06-1998	EP CA	0845350 2221420		03-06-1998 29-05-1998
US	6270869	B1	07-08-2001	CA EP	2291207 1005977	7 A1 7 A1	02-06-2000 07-06-2000
US	5139878	A	18-08-1992	CA DE DE EP JP MX WO	2115254 69222656 69222656 0598822 2744132 6504742 9204557 9303922	D D1 D T2 P A1 P B2 T A1	04-03-1993 13-11-1997 05-02-1998 01-06-1994 28-04-1998 02-06-1994 01-02-1993 04-03-1993
	5589275	A	31-12-1996	CH AT	684746 201164		15-12-1994 15-06-2001

INTENIATIONAL SEARCH REPORT

Information on patent family members

International Application No PCT/EP 03/12159

Patent document cited in search report	Publication date		Patent family member(s)	Publication date	
US 5589275 A		AT CA WO DE DE EP EP	238903 T 2133645 A1 9419184 A1 59409749 D1 59410281 D1 0637285 A1 0872335 A2	15-05-2003 01-09-1994 01-09-1994 21-06-2001 05-06-2003 08-02-1995 21-10-1998	
EP 1038792 A	27-09-2000	EP AU EP WO	1038792 A1 3758000 A 1163163 A1 0056628 A1	27-09-2000 09-10-2000 19-12-2001 28-09-2000	
US 5469968 A	28-11-1995	NONE			